



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,662	02/20/2004	George Lin	26008	5540
20529	7590	04/23/2007		
NATH & ASSOCIATES 112 South West Street Alexandria, VA 22314			EXAMINER NGUYEN, DUNG T	
			ART UNIT	PAPER NUMBER
			2871	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/781,662

Applicant(s)

LIN, GEORGE

Examiner

Dung Nguyen

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 February 2007.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.  
4a) Of the above claim(s) 10-19 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-9 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Applicant's amendment dated 02/01/2007 has been received and entered. Claims 1-9 are remain pending in the application. Claims 10-19 stand withdrawn from consideration.

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

### ***Specification***

1. The amendment filed 02/01/2007 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material "ratio of a thickness of said reflection layer and said reflection portion to the thickness of said transmissive portion is determined depending on the red, green, and blue of said flat color filter" which is not supported by the original disclosure. Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant

Art Unit: 2871

art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 has been amended to recite the limitation of "ratio of a thickness of said reflection layer and said reflection portion to the thickness of said transmissive portion is determined depending on the red, green, and blue of said flat color filter". Such amendment fails to comply with the written description requirement. In particular, the instant specification just disclose that two different thicknesses (e.g., h1, h2) can be calculated through hue simulation of the primary colors (e.g., G, R and B) rather than the ratio of such thicknesses depending on the primary colors. Therefore, such limitation raises the issue of new matter.

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubo et al., US Patent No. 6,295,109, in view of Kaneda et al., US Patent No. 6,798,473 and Choi et al., US 2004/0135945 A1.

Regarding claims 1 and 4-9, Kubo et al. disclose a transfective liquid crystal display (LCD) device (figures 2 and 23E) comprising:

. a transparent substrate (1) having a common electrode (4) and an alignment layer inherently formed over the common electrode;

Art Unit: 2871

. a TFT array substrate (2/51) having a passivation layer (60), a reflection layer (61), a transparent conductive layer (58a) wherein a reflection portion is thicker than a transmissive portion (see figure 23E ).

Kubo et al. neither disclose a color filter being formed over the TFT array substrate nor the ratio of two thicknesses of the reflective portion and the transmissive portion determined depending on the primary colors. Kaneda et al. do disclose a color filter (4a/4b/4c) can be formed over an TFT array substrate (figure 1) such as the reflection portion and the transmissive portion would have the same color density (e.g., same color).

Regarding claims 2 and 3, Kaneda et al. disclose the transparent conductive layer (5b) can be formed between the color filter (4a/4b/4c) and the liquid crystal layer (7).

Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to employ a color over the Kubo et al. device, so as the transparent conductive layer would layout between the color filter and the TFT array substrate as shown by Kaneda et al. in order to obtain a good color display (e.g. color tone) in an LCD device (col. 9, ln 16-20).

In addition, Choi et al. also disclose a relationship of a cell gap ratio and a thickness ratio of the color filter (see [0061]) to perform a good color display (Id). Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to modify the Kubo et al. display (in view of Kaneda et al.) having a ratio of thicknesses of a reflective portion and transmissive portion that depending on the red, green and blue color filters as shown by Choi et al. in order to obtain a high brightness and superior display quality in an LCD device (Id.).

*Conclusion*

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

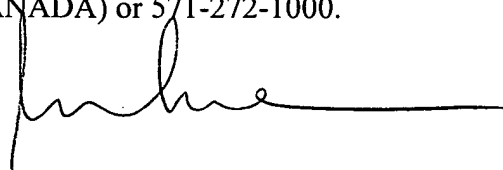
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2871

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN  
04/16/2007

A handwritten signature in black ink, appearing to read 'Dung Nguyen', with a long horizontal line extending to the right.

***Dung Nguyen***  
***Primary Examiner***  
***Art Unit 2871***